

WHAT IS CLAIMED IS:

Sub
A1
1. A data reading-and-writing apparatus for reading and writing data in at least one conforming format from and to a recording medium capable of recording data in a plurality of formats, said data reading-and-writing apparatus comprising:

reading-and-writing means for performing reading and writing to the recording medium; and

control means for controlling said data reading-and-writing apparatus so as to record the data in the conforming format in a predetermined directory of the recording medium, to read the data in the conforming format from the predetermined directory of the recording medium, and to recognize information concerning data in a non-conforming format, which differs from the conforming format, by referring to a directory other than the predetermined directory of the recording medium.

2. A data reading-and-writing apparatus according to Claim 1, wherein said data reading-and-writing apparatus informs a user of a state of said data reading-and-writing apparatus based on the information concerning the data in the non-conforming format.

002250" 68089960

[illegible]

7. A data reading-and-writing apparatus according to Claim 3, wherein said control means controls said display

Cont
A1

means so as to display the size of the data in the non-conforming format.

8. A data reading-and-writing apparatus according to Claim 3, further comprising operating means for giving instructions, wherein said control means causes said display means to perform predetermined display in accordance with the instructions given by said operating means.

9. A data reading-and-writing apparatus according to Claim 8, wherein said control means causes said display means to perform predetermined display in response to the instruction given by said operating means to determine the content of the recording medium.

10. A data reading-and-writing apparatus according to Claim 8, wherein said control means causes said display means to perform predetermined display in response to the instruction given by said operating means to read the recording medium.

11. A data reading-and-writing apparatus according to Claim 1, wherein said control means controls said reading-and-writing means so as to erase some of the data in the non-conforming format.

05663089.092200

Cont
A1

12. A data reading-and-writing apparatus according to Claim 11, wherein said control means controls said reading-and-writing means so as to erase all the data in the non-conforming format.

13. A data reading-and-writing apparatus according to Claim 11, wherein said control means controls said reading-and-writing means so as to erase the data in the non-conforming format in category units.

14. A data reading-and-writing apparatus according to Claim 11, wherein said control means controls said reading-and-writing means so as to erase the data in the non-conforming format in file units.

15. A data reading-and-writing apparatus according to Claim 11, further comprising display means for performing display, wherein said control means controls said display means and said reading-and-writing means so that said display means displays the information concerning the data in the non-conforming format prior to erasing the data.

16. A data reading-and-writing apparatus according to Claim 11, wherein said control means controls said reading-

002260" 6809960

Cont
A1

and-writing means so as to erase the data in the non-conforming format when the residual capacity of the recording medium for writing the data in the conforming format is insufficient.

17. A data reading-and-writing apparatus according to Claim 1, wherein the data in said plurality of formats are stored in directories having corresponding predetermined names; and

said control means refers to the directories based on the names of the directories.

18. A data reading-and-writing apparatus according to Claim 17, wherein the directories are created in a root directory of the recording medium.

19. A data reading-and-writing apparatus according to Claim 17, wherein the directories are created in a specific directory of the recording medium.

20. A data reading-and-writing apparatus according to Claim 17, further comprising:

storage means for storing corresponding relationship information indicating the corresponding relationships between the names of the directories and the content of the

05663039-052200

Cont
A1
data stored in the directories;

wherein said control means compares, based on the corresponding relationship information in said storage means, the names of the directories recorded on the recording medium with the names of the directories indicated in the corresponding relationship information.

21. A data reading-and-writing apparatus according to Claim 17, wherein the directories store data indicating the content of the data stored in the directories; and

said control means recognizes the content of the data stored in the directories based on the data indicating the content of the data.

22. A data reading-and-writing apparatus according to Claim 1, wherein the conforming format includes one type.

23. A data reading-and-writing apparatus according to Claim 1, wherein the recording medium includes a non-volatile memory.

24. A data reading-and-writing method for a data reading-and-writing apparatus for reading and writing data in at least one conforming format from and to a recording medium capable of recording data in a plurality of formats,

0566069 052200

Cont
A1
said data reading-and-writing method comprising the steps
of:

writing the data in the conforming format in a
predetermined directory of the recording medium;

reading the data in the conforming format from the
predetermined directory of the recording medium; and

recognizing information concerning data in a non-
conforming format, which differs from the conforming format,
by referring to a directory other than the predetermined
directory of the recording medium.

25. A data reading-and-writing method according to
Claim 24, further comprising an informing step of informing
a user of a state of said data reading-and-writing apparatus
based on the information concerning the data in the non-
conforming format.

26. A data reading-and-writing method according to
Claim 25, further comprising a display step of performing
predetermined display based on the information concerning
the data in the non-conforming format.

27. A data reading-and-writing method according to
Claim 25, further comprising a light emitting step of
emitting light, wherein a light emitting state is varied

09663039-092200

Cont
A
based on the information concerning the data in the non-conforming format.

28. A data reading-and-writing method according to Claim 25, further comprising a beep generating step of generating a beep based on the information concerning the data in the non-conforming format.

29. A data reading-and-writing method according to Claim 26, wherein, in said display step, the number of items in the data in the non-conforming format is displayed.

30. A data reading-and-writing method according to Claim 26, wherein, in said display step, the size of the data in the non-conforming format is displayed.

31. A data reading-and-writing method according to Claim 26, wherein, in said display step, predetermined display is performed in accordance with instructions given by operating means for giving the instructions.

32. A data reading-and-writing method according to Claim 26, wherein, in said display step, predetermined display is performed in response to an instruction to determine the content of the recording medium.

002250-092200

33. A data reading-and-writing method according to Claim 26, wherein, in said display step, predetermined display is performed in response to an instruction to read the recording medium.

34. A data reading-and-writing method according to Claim 24, further comprising an erasing step of erasing some of the data in the non-conforming format.

35. A data reading-and-writing method according to Claim 34, wherein all the data in the non-conforming format is erased.

36. A data reading-and-writing method according to Claim 34, wherein the data in the non-conforming format is erased in category units.

37. A data reading-and-writing method according to Claim 34, wherein the data in the non-conforming format is erased in file units.

38. A data reading-and-writing method according to Claim 34, further comprising a display step of displaying the information concerning the data in the non-conforming

Cont
A1

002260.6808960

cut
A1
format prior to erasing the data.

39. A data reading-and-writing method according to Claim 34, wherein the data in the non-conforming format is erased when the residual capacity of the recording medium for writing the data in the conforming format is insufficient.

40. A data reading-and-writing method according to Claim 24, wherein the data in said plurality of formats are stored in directories having corresponding predetermined names; and

the directories are referred to based on the names of the directories.

41. A data reading-and-writing method according to Claim 40, wherein the directories are created in a root directory of the recording medium.

42. A data reading-and-writing method according to Claim 40, wherein the directories are created in a specific directory of the recording medium.

43. A data reading-and-writing method according to Claim 40, further comprising the steps of:

0566069-092200

Cont
A1
storing corresponding relationship information
indicating the corresponding relationships between the names
of the directories and the content of the data stored in the
directories; and

comparing, based on the corresponding relationship
information, the names of the directories recorded on the
recording medium with the names of the directories indicated
in the corresponding relationship information.

44. A data reading-and-writing method according to
Claim 40, wherein the directories store data indicating the
content of the data stored in the directories; and

the content of the data stored in the directories is
recognized based on the data indicating the content of the
data.

45. A data reading-and-writing method according to
Claim 24, wherein the conforming format includes one type.

46. A data reading-and-writing method according to
Claim 24, wherein the recording medium includes a non-
volatile memory.

47. A data reading-and-writing system having a
recording medium capable of recording data in a plurality of

002260" 68089960

Cont
A1

formats and a data reading-and-writing apparatus for reading and writing data in at least one conforming format from and to the recording medium, said data reading-and-writing system comprising:

reading-and-writing means for performing reading and writing to the recording medium; and

control means for controlling said data reading-and-writing apparatus so as to record the data in the conforming format in a predetermined directory of the recording medium, to read the data in the conforming format from the predetermined directory of the recording medium, and to recognize information concerning data in a non-conforming format, which differs from the conforming format, by referring to a directory other than the predetermined directory of the recording medium.

48. A data reading-and-writing system according to Claim 47, wherein said data reading-and-writing apparatus informs a user of a state of said data reading-and-writing apparatus based on the information concerning the data in the non-conforming format.

49. A data reading-and-writing system according to Claim 48, further comprising display means for performing predetermined display, under the control of said control

002250-092200

Cont
A1
means, based on the information concerning the data in the non-conforming format.

50. A data reading-and-writing system according to Claim 48, further comprising light emitting means for emitting light, wherein said control means varies a light emitting state of said light emitting means based on the information concerning the data in the non-conforming format.

51. A data reading-and-writing system according to Claim 48, further comprising beep generating means for generating a beep, under the control of said control means, based on the information concerning the data in the non-conforming format.

52. A data reading-and-writing system according to Claim 49, wherein said control means controls said display means so as to display the number of items in the data in the non-conforming format.

53. A data reading-and-writing system according to Claim 49, wherein said control means controls said display means so as to display the size of the data in the non-conforming format.

54. A data reading-and-writing system according to Claim 49, further comprising operating means for giving instructions, wherein said control means causes said display means to perform predetermined display in accordance with the instructions given by said operating means.

55. A data reading-and-writing system according to Claim 54, wherein said control means causes said display means to perform predetermined display in response to the instruction given by said operating means to determine the content of the recording medium.

56. A data reading-and-writing system according to Claim 54, wherein said control means causes said display means to perform predetermined display in response to the instruction given by said operating means to read the recording medium.

57. A data reading-and-writing system according to Claim 47, wherein said control means controls said reading-and-writing means so as to erase some of the data in the non-conforming format.

58. A data reading-and-writing system according to

Cont
A1

002260" 68080860

Cont
A1
Claim 57, wherein said control means controls said reading-and-writing means so as to erase all the data in the non-conforming format.

59. A data reading-and-writing system according to Claim 57, wherein said control means controls said reading-and-writing means so as to erase the data in the non-conforming format in category units.

60. A data reading-and-writing system according to Claim 57, wherein said control means controls said reading-and-writing means so as to erase the data in the non-conforming format in file units.

61. A data reading-and-writing system according to Claim 57, further comprising display means for performing display, wherein said control means controls said display means and said reading-and-writing means so that said display means displays the information concerning the data in the non-conforming format prior to erasing the data.

62. A data reading-and-writing system according to Claim 57, wherein said control means controls said reading-and-writing means so as to erase the data in the non-conforming format when the residual capacity of the

003250-6809960

Cont
M
recording medium for writing the data in the conforming
format is insufficient.

63. A data reading-and-writing system according to
Claim 47, wherein the data in said plurality of formats are
stored in directories having corresponding predetermined
names; and

said control means refers to the directories based on
the names of the directories.

64. A data reading-and-writing system according to
Claim 63, wherein the directories are created in a root
directory of the recording medium.

65. A data reading-and-writing system according to
Claim 63, wherein the directories are created in a specific
directory of the recording medium.

66. A data reading-and-writing system according to
Claim 63, further comprising:

storage means for storing corresponding relationship
information indicating the corresponding relationships
between the names of the directories and the content of the
data stored in the directories;

wherein said control means compares, based on the

002260" 68089960

Cont
A1

corresponding relationship information in said storage means, the names of the directories recorded on the recording medium with the names of the directories indicated in the corresponding relationship information.

67. A data reading-and-writing system according to Claim 63, wherein the directories store data indicating the content of the data stored in the directories; and

said control means recognizes the content of the data stored in the directories based on the data indicating the content of the data.

68. A data reading-and-writing system according to Claim 47, wherein the conforming format includes one type.

69. A data reading-and-writing system according to Claim 47, wherein the recording medium includes a non-volatile memory.

70. A program providing medium for providing a data reading-and-writing program to be applied to a data reading-and-writing apparatus for reading and writing data in at least one conforming format from and to a recording medium capable of recording data in a plurality of formats, said data reading-and-writing program comprising the steps of:

002250" 58089650

Cont
A1

writing the data in the conforming format in a predetermined directory of the recording medium;

reading the data in the conforming format from the predetermined directory of the recording medium; and

recognizing information concerning data in a non-conforming format, which differs from the conforming format, by referring to a directory other than the predetermined directory of the recording medium.

71. A program providing medium according to Claim 70, wherein said data reading-and-writing program further comprises an informing step of informing a user of a state of said data reading-and-writing apparatus based on the information concerning the data in the non-conforming format.

72. A program providing medium according to Claim 71, wherein said data reading-and-writing program further comprises a display step of performing predetermined display based on the information concerning the data in the non-conforming format.

73. A program providing medium according to Claim 72, wherein said data reading-and-writing program displays, in said display step, the number of items in the data in the non-conforming format.

002260" 68080960

Cont
A1
conforming format.

79. A program providing medium according to Claim 78, wherein said data reading-and-writing program further comprises a display step of displaying the information concerning the data in the non-conforming format prior to erasing the data.

80. A program providing medium according to Claim 78, wherein said data reading-and-writing program erases the data in the non-conforming format when the residual capacity of the recording medium for writing the data in the conforming format is insufficient.

81. A program providing medium according to Claim 70, wherein the data in said plurality of formats are stored in directories having corresponding predetermined names; and
said data reading-and-writing program refers to the directories based on the names of the directories.

82. A program providing medium according to Claim 81, wherein said data reading-and-writing program further comprising the steps of:

storing corresponding relationship information indicating the corresponding relationships between the names

002260" 6809960

comparing, based on the corresponding relationship information, the names of the directories recorded on the recording medium with the names of the directories indicated in the corresponding relationship information.

said data reading-and-writing program recognizes the content of the data stored in the directories based on the data indicating the content of the data.

1995 **1996** **1997** **1998** **1999** **2000** **2001** **2002** **2003** **2004** **2005** **2006** **2007** **2008** **2009** **2010** **2011** **2012** **2013** **2014** **2015** **2016** **2017** **2018** **2019** **2020** **2021** **2022** **2023** **2024** **2025** **2026** **2027** **2028** **2029** **2030** **2031** **2032** **2033** **2034** **2035** **2036** **2037** **2038** **2039** **2040** **2041** **2042** **2043** **2044** **2045** **2046** **2047** **2048** **2049** **2050** **2051** **2052** **2053** **2054** **2055** **2056** **2057** **2058** **2059** **2060** **2061** **2062** **2063** **2064** **2065** **2066** **2067** **2068** **2069** **2070** **2071** **2072** **2073** **2074** **2075** **2076** **2077** **2078** **2079** **2080** **2081** **2082** **2083** **2084** **2085** **2086** **2087** **2088** **2089** **2090** **2091** **2092** **2093** **2094** **2095** **2096** **2097** **2098** **2099** **2100** **2101** **2102** **2103** **2104** **2105** **2106** **2107** **2108** **2109** **2110** **2111** **2112** **2113** **2114** **2115** **2116** **2117** **2118** **2119** **2120** **2121** **2122** **2123** **2124** **2125** **2126** **2127** **2128** **2129** **2130** **2131** **2132** **2133** **2134** **2135** **2136** **2137** **2138** **2139** **2140** **2141** **2142** **2143** **2144** **2145** **2146** **2147** **2148** **2149** **2150** **2151** **2152** **2153** **2154** **2155** **2156** **2157** **2158** **2159** **2160** **2161** **2162** **2163** **2164** **2165** **2166** **2167** **2168** **2169** **2170** **2171** **2172** **2173** **2174** **2175** **2176** **2177** **2178** **2179** **2180** **2181** **2182** **2183** **2184** **2185** **2186** **2187** **2188** **2189** **2190** **2191** **2192** **2193** **2194** **2195** **2196** **2197** **2198** **2199** **2200** **2201** **2202** **2203** **2204** **2205** **2206** **2207** **2208** **2209** **2210** **2211** **2212** **2213** **2214** **2215** **2216** **2217** **2218** **2219** **2220** **2221** **2222** **2223** **2224** **2225** **2226** **2227** **2228** **2229** **2230** **2231** **2232** **2233** **2234** **2235** **2236** **2237** **2238** **2239** **2240** **2241** **2242** **2243** **2244** **2245** **2246** **2247** **2248** **2249** **2250** **2251** **2252** **2253** **2254** **2255** **2256** **2257** **2258** **2259** **2260** **2261** **2262** **2263** **2264** **2265** **2266** **2267** **2268** **2269** **2270** **2271** **2272** **2273** **2274** **2275** **2276** **2277** **2278** **2279** **2280** **2281** **2282** **2283** **2284** **2285** **2286** **2287** **2288** **2289** **2290** **2291** **2292** **2293** **2294** **2295** **2296** **2297** **2298** **2299** **2300** **2301** **2302** **2303** **2304** **2305** **2306** **2307** **2308** **2309** **2310** **2311** **2312** **2313** **2314** **2315** **2316** **2317** **2318** **2319** **2320** **2321** **2322** **2323** **2324** **2325** **2326** **2327** **2328** **2329** **2330** **2331** **2332** **2333** **2334** **2335** **2336** **2337** **2338** **2339** **2340** **2341** **2342** **2343** **2344** **2345** **2346** **2347** **2348** **2349** **2350** **2351** **2352** **2353** **2354** **2355** **2356** **2357** **2358** **2359** **2360** **2361** **2362** **2363** **2364** **2365** **2366** **2367** **2368** **2369** **2370** **2371** **2372** **2373** **2374** **2375** **2376** **2377** **2378** **2379** **2380** **2381** **2382** **2383** **2384** **2385** **2386** **2387** **2388** **2389** **2390** **2391** **2392** **2393** **2394** **2395** **2396** **2397** **2398** **2399** **2400** **2401** **2402** **2403** **24**